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Protocols as curriculum? Learning health advocacy skills by working with transgender patients in the context of gender-affirming medicine

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Abstract
Evidenced by leading journals in academic medicine, health professions education has taken up the call to advance equitable healthcare. One pressing area where gaps and inequities are apparent is transgender (trans) people's access to gender-affirming medicine such as hormones and surgeries. Reasons for the dire state of care include education gaps. While specific content knowledge has been identified as lacking in medical school curricula, less research has focused on the complex social practices required of clinicians and educators working in gender-affirming medicine, and how these skills are learned through practice. In order to inform health professions education in this key area of need, we conducted a study to better understand the social practices, and the learning that occurs therein, of gender-affirming medicine. We identified the work processes of 22 clinicians, clinician-educators, trans patients, and clinical care administrators with attention to how policies and protocols influenced practice, learning, and teaching. The results of our study elucidate: (1) that practicing of gender-affirming medicine is strictly dictated by standardized assessment protocols, which serve as a form of curriculum; and (2) how health professionals learn and teach health advocacy as a form of resistance to protocols identified as creating inequities. These findings suggest an opportunity to view protocols—and their inherent limitations—more deliberately as teaching and learning tools, specifically for learning advocacy.

Keywords Health advocacy · Health professions education · Institutional ethnography · Protocols · Standards of care · Transgender

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Introduction

Evidenced by leading journals in academic medicine, health professions education (HPE) has taken up the call to advance equitable healthcare (Alberti et al. 2018; Bourgois et al. 2017; Sharma et al. 2018). One of the most pressing areas where gaps and inequities are apparent is transgender (trans) people's access to gender-affirming medicine. Gender-affirming medicine includes cross-sex hormones (e.g., estrogen, progesterone, antiandrogynes, and testosterone), chest/breast surgery (e.g., breast augmentation and chest reconstruction surgeries), and genital surgery (e.g., orchiectomy, vaginoplasty, hysterectomy, bilateral saplingo-oophorectomy, metoidioplasty, and phalloplasty) (Tomita et al. 2018). These treatments are empirically evaluated and deemed medically safe and effective interventions to align trans people's physical bodies with their psychological gender identities (Asscheman et al. 2011; Costa and Colizzi 2016; Tomita et al. 2018). Gaps in the education of clinicians have been empirically-identified as one of the key reasons for this dire state of health care for trans people (Giffort and Underman 2016; Jaffee et al. 2016). Furthermore, residents and physicians alike report feeling underprepared to work with this population (Coutin et al. 2018; Snelgrove et al. 2012). While an absence of gender-affirming medicine content knowledge has been noted as lacking in the formal medical school curricula, less research has focused on the complex social practices required of clinicians working in gender-affirming medicine.

Learning how to advocate for the express purpose of addressing health inequities experienced by marginalized patients and populations is an emerging focus within HPE research. Hubinette et al. (2017) describe health advocacy as a multi-faceted set of skills that includes "ensuring access to care, navigating the healthcare system, mobilizing resources, addressing health inequities, influencing health policy and creating system change" (p. 129). Learning how to (and why one should) perform health advocacy duties is a core feature of many HPE programs and professional codes of ethics (Martin et al. 2013; Ng et al. 2015). Our study is situated in the context of gender-affirming medicine as an instance of the more general challenge of educating for equitable care for all. Trans people have been described as a marginalized population in need of health advocacy to mitigate poor mental and physical health outcomes (Kosenko et al. 2013; Bauer et al. 2014). Moreover, research lacks attention to the challenges that clinicians face in learning gender-affirming medicine. Yet learning how to be a health advocate for the specific (and often unique) needs of trans patients is largely absent from formal HPE curricula, and clinicians urgently require these clinical skills (Giffort and Underman 2016).

Standardized care protocols have been recommended to universalize access to hormones and surgeries and to optimize gender-affirming medicine (Coleman et al. 2012) and they currently act as the main guidelines for practitioners working in this domain. Also termed 'guidelines' or 'practice policies', standardized medical care protocols expanded in the late 1960s and 1970s (Berg 1997). Today, protocols in healthcare are pervasive; they reflect efforts to reduce practice inconsistencies, and to limit errors in clinicians' behaviours with the goal of improving patient care (Parker and Lawton 2000). By offering clear guidelines and best practices, they teach us how to practice in clear-cut circumstances. Yet protocols also have limits, and—if applied uncritically—they can impose harms, such as conveying there are always universal responses in clinical practice (Berg 1997). Suggesting protocols' inherent flexibility, in legal contexts such as in malpractice claims, the courts rarely accept clinical practice guidelines as evidence of a single measurable standard of care (Moffett and Moore 2011). Protocols in gender-affirming medicine include the

internationally recognized World Professional Association of Transgender Health standards of care (WPATH-SOC) and the Diagnostic and Statistical Manual of Mental Disorders (DSM) gender dysphoria diagnostic criteria. HPE curriculum lacks formal instruction on how to use these protocols.

In the absence of gender-affirming medicine being taught in medical schools, protocols—for all intents and purposes –serve as curriculum. Currently, that 'curriculum' includes the following: First, the DSM teaches clinicians the diagnostic criteria of 'gender dysphoria', the condition associated with trans identity (APA 2013). Secondly, the WPATH-SOC instructs healthcare providers to carry out a number of functions such as how to: "assess gender dysphoria", "provide information about gender identity options and possible medical treatments", "assess, diagnose, and discuss treatment options for co-existing mental health concerns", and "if applicable, assess eligibility, prepare, and refer" for hormones or surgeries (Coleman et al. 2012, pp. 23–28). Finally, healthcare providers use the WPATH-SOC psychosocial readiness checklists to evaluate when (or if) trans patients are good candidates for hormones or surgeries.

Currently, a number of problems exist with protocols and their use in gender-affirming medicine specifically. Clinicians practicing in gender-affirming medicine misinterpret these protocols (Dewey 2013; Ehrbar and Gorton 2010). Diagnosing gender dysphoria, along with using standardized readiness assessments for hormones/surgeries, are subjects of much debate on the theme of health equity. These practices have been described as gatekeeping, and pathologizing to trans people (Budge 2015; MacKinnon 2018). Standardized readiness protocols have been identified as a cause of mistrust between trans people and clinicians (Dewey 2013; Ehrbar and Gorton 2010). Despite being developed with the intentions of teaching clinicians step-by-step how to facilitate gender-affirming medicine, and of universalizing access for trans patients, it has been argued that mandatory psychosocial evaluations convey that trans people are not capable of making medical decisions (Bouman et al. 2014). Clinicians do not have to follow the same psychosocial readiness protocols when non-trans (cisgender) patients require the same treatments (e.g., hormones, hysterectomies, orchiectomies) (Bouman et al. 2014). Hormone/surgery readiness assessments are therefore identified as the locus of gatekeeping practices, as they put clinicians in a position of having power over their patients in terms of legitimizing their identities through diagnosis, and in deciding if patients are good candidates for gender-affirming medical treatments.

Education efforts in this area cannot succeed without attention to these contravening social factors, since clinicians' practices exist in complex health systems that interlink with other social systems (LaDonna et al. 2018; Ng et al. 2017). Learning to identify when protocols create inequities, and how to advocate for patients is paramount. Our research therefore explores how standardized readiness assessment protocols shape how clinicians learn to practice health advocacy in the context of gender-affirming medicine.

Methodology

In order to inform HPE research in this key area of need, we conducted an institutional ethnography (IE) study to better understand the social practices, and the advocacy learning and teaching that occurs in response to standardized clinical protocols used in gender-affirming medicine. IE was selected, in part, due to its goal of creating social transformation (Smith 1990). Developed by Dorothy Smith (2005), IE allows researchers to use empirical methods to study people's 'everyday' actions in relation to texts (such

as protocols, for example). According to institutional ethnographers, texts are defined as words and images that can be reproduced in multiple settings, coordinating people's everyday practices "beyond the particular local setting of their reading and writing" (Smith 2005, 1999, p. 80). The WPATH-SOC and the DSM are therefore considered 'texts'. Moreover, IE broadly defines the concept of 'work' to include any practices of daily life that require intent, time, and effort (Smith 2005; Ng et al. 2017). We identified the work processes of clinicians, clinician-educators, trans patients, and clinical care administrators with attention to how protocols influenced their learning, teaching, and practice. In other words, our study makes visible how standardized clinical texts used in gender-affirming medicine shape the everyday work practices of clinicians and patients.

Data collection and analysis

In IE studies, researchers collect data about both the texts that influence work practices, and about how the work of practitioners is coordinated by texts. Following the tenets of IE, data were analyzed iteratively and dynamically by investigating key informants' everyday work practices in gender-affirming medicine and linking those practices to macro-level governing texts (Smith 2005; Ng et al. 2017; Turner 2006). We were able to make visible how gender-affirming medicine operates in Canada by speaking with informants, examining pertinent texts described as being used in their work, and talking with, and observing more informants. This method is referred to as IE's text-talk-text aspects of data collection and analysis whereby speaking with informants is followed by reviewing texts, and then more people are engaged in talk to fill in knowledge gaps (Grace 2013). Consistent with IE's text-talk-text aspects of data collection and analysis (Grace 2013), we reviewed clinical protocols in gender-affirming medicine, interviewed key informants, analyzed the clinical texts identified as salient to informants' everyday work practices, and then talked with new informants. Two clinician-education workshops on gender-affirming medicine and health advocacy were also observed. These observations similarly informed subsequent key informant interview topics. These steps were repeated until we developed a clear picture of gender-affirming medicine, based on the work practices, and texts used by, key informants.

Our main data sources were therefore key informant interviews, standardized clinical protocol texts identified as pertinent to informants' everyday work, surgery funding policies, and the observation of clinician-education workshops on gender-affirming medicine. Research ethics board (REB) approval was attained prior to collecting data between June 2017 and January 2018. A total of twenty-three key informant interviews were conducted. One informant withdrew from the study, so we included twenty-two informant interviews for analysis. These informants included: (a) trans individuals who had accessed mental health and/or gender-affirming medical care in the past year (n = 9); (b) clinicians and clinician-educators with a minimum of one year of experience working with trans patients (n = 11); and (c) hospital administrators currently working on trans health programming (n = 2). Clinicians and clinician-educators were trained in the specialties of family and emergency medicine, psychiatry, psychology, and social work. Trans people were recruited using an REB-approved flyer. Health professional informants with experiences working with trans people were identified within our professional networks, and invited to participate in an interview using an REB-approved script. Health professionals were recruited from numerous clinical organizations. Interview questions were designed to understand how clinical protocols shaped the work that trans patients and clinicians do in

gender-affirming medical care settings. Interviews were flexibly guided by REB-approved interview guides (a trans patient version, and a health professional version) to uncover people's work processes as clues to social relations. Interview guides were iteratively amended based on what was revealed in each conversation with key informants. Interviews ranged between thirty and ninety minutes and were audio-recorded and transcribed verbatim. All interviews were conducted by the first author in the Greater Toronto Area, and in Vancouver, Canada. Twenty-two key informant transcripts were reviewed to help explicate how standardized protocols coordinate the advocacy work informants learned to do in response to these texts.

While many qualitative research approaches present findings according to broad themes, IE instead focuses on people's everyday work processes. IE findings also highlight how these work practices are shaped by macro-level texts. To enhance clarity, we organized the kind of learning and teaching work people talked about doing in relation to protocols. Below, we organize our data to illustrate the functions of: (1) Protocols shaping learning; (2) Learning gender-affirming medicine informally; (3) Learning how to advocate; and (4) Learning advocacy as workarounds, as opposed to systems-change. In reporting our findings, some informants' pronouns have been changed to further anonymize identities as this is a niche sub-specialty.

Results

Protocols shape learning

Clinicians and educators in our study explained how, in the absence of formal curricula and clinical teachers, they learned and taught the clinical skills necessary to work in gender-affirming medicine by using standardized clinical protocols. For example, one clinician informant explained:

> I learned mostly by looking at the guidelines, the [local gender-affirming medicine protocols]. And then there's other guidelines too… And the people who are referred to see me, they know that I am experienced in this area. So oftentimes I don't need to refer to the guidelines anymore… and then sometimes I use it [guidelines] as a teaching tool for helping other providers learn to take care of more trans patients.

Learning to work with trans people happened for this informant over years of training on the job, and through using standardized protocols within these clinical encounters.

Our subsequent textual analysis of the informal work of learning and teaching to "take care of more trans patients" using "the guidelines" revealed that this protocol is linked to the WPATH-SOC. Further evaluation revealed that the WPATH-SOC sets the competency standards for health professionals who work with trans patients. The WPATH-SOC recommends the following minimum credentials: (1) A master's degree or equivalent in clinical behavioural science; (2) Facility with the DSM; (3) Competency in diagnosing mental health concerns and distinguishing these from gender dysphoria; (4) Supervised training in psychotherapy or counselling; (5) Understanding the assessment and treatment of gender dysphoria; and (6) Continuing education in the treatment of gender dysphoria, including attending workshops or obtaining relevant supervision (Coleman et al. 2012). Clinicians and educators who work in this area therefore rely on the WPATH-SOC to guide their continuing education and practice with this patient population.

Learning gender-affirming medicine informally

Clinician and educator informants explained that, in the absence of any hormone/surgery assessment training in their formal educations, they learned the social practices and processes of this sub-specialty informally and on the job. Skills were largely attained by attending trans health conferences, through reading and using standardized clinical texts as they became aware of them in their work contexts, and in interacting with trans patients. One clinician-educator explained:

> I just got more exposure to it [gender-affirming medicine] over the years… People kind of knew that, and were more likely to refer trans patients to me. I think I just developed a bit of a facility… And [with] the WPATH guidelines.

And another clinician reflected on his lack of exposure to this content area in formal medical education curriculum, and processes surrounding informal learning: "thankfully [my] preceptor knew that I was interested in this area too… But other than that, before starting patients on hormones, for example, I just learned it myself." As such, as an outcome of being guided by these texts, clinician and educator informants learned and taught health advocacy for trans people by gaining these skills on their own. A result of this informal learning and teaching included critiquing the DSM for its inclusion of gender dysphoria; and resisting psychosocial readiness protocols that contribute to gatekeeping access to hormones and surgeries.

Perhaps due to their advanced practice knowledge, the informants we interviewed expressed critical awareness that standardized protocols such as the WPATH-SOC and the DSM could counter their goals to support patients optimally. And on the other hand, informants identified that in many cases the system demands the use of these texts to advocate for trans patient to access hormones and surgeries. The tensions of diagnosing trans people with gender dysphoria was one example that informants talked about in terms of learning and teaching innovative criticism toward clinical protocols for the express purpose of health advocacy. For instance, a clinician expressed this tension by stating:

> the DSM is interesting because I tend to not use gender dysphoria, I just think it's a weird diagnosis… Sometimes I use it because it gets someone something that they need, and then I'm happy to use it.

As shown in this example, when the clinical work of using the DSM with trans people revealed problems, informants responded by learning solutions, such as not using this protocol, or by using it strategically.

Learning how to advocate

To enhance access to care for their patients, informants evoked an analogy of using the DSM's gender dysphoria diagnosis as an advocacy "tool" rather than taking for granted that trans identity is a mental disorder. One clinician-educator stated that "I teach a lot about the gender dysphoria diagnosis…I give a lot of importance to the utility of this diagnosis as sort of a tool to help a patient get something that they need." Informants consistently discussed the ways that a diagnosis of gender dysphoria makes access to gender-affirming medical care possible for patients, yet paradoxically, this diagnosis pathologizes trans identities. Furthermore, trans informants discussed ways that care inequities are

created by standardized protocols. For instance, trans people whose life experiences are aligned with what the DSM lists as symptoms of gender dysphoria are deemed more legitimately trans, and therefore good candidates for hormones and surgeries. Despite many trans patients "needing" hormones and surgeries, protocols place limits on who clinicians can refer. Criticism toward the gender dysphoria diagnosis is therefore an important textually-coordinated component of health advocacy learning and teaching aimed to reduce inequities in gender-affirming medicine. Learning and teaching to critique this diagnosis, and apply protocols more flexibly, is a necessary advocacy intervention to correct the inherent problems of protocols.

Although many trans people opt against surgically altering their genitalia, those who desire these procedures must undergo the gender role experience (GRE) test. The GRE test is the final item in the WPATH-SOC's list of readiness assessments for genital reassignment surgeries, colloquially termed 'lower surgeries' (e.g. vaginoplasty, phalloplasty, or metoidioplasty). The GRE protocol directs clinicians to assess whether patients have been living in their identified gender role for a minimum of twelve continuous months (Coleman et al. 2012). Clinician informants discussed how, through interactions with patients, they learned the ways that the GRE test imposes safety risks on trans patients who are unable to present in a gender congruent role at all times for myriad reasons. For example, after years of conducting surgery assessments, one clinician informant shared his advocacy goal directed at changing the WPATH-SOC's GRE test:

> My own personal goal is like well what can we do to change that language?… One of my biggest beefs with the gender role experience… Is it reasonable to expect somebody to present for a year full-time in an identity congruent role with their family or friends or at work, when sometimes there are issues of safety? … And the way that it's worded [in the WPATH-SOC], it's 'yes/no'. So yeah, that's my own, you know, personal advocacy piece…

Ostensibly, through his clinical work experiences on the job he learned how the WPATH-SOC GRE criterion fails trans people, and may create situations in which trans people are at risk of harm or violence and may create situations of harm or violence.

Learning advocacy as workarounds, as opposed to systems-change

Informants in our study learned and taught ways to resist the DSM and the WPATH-SOC for the purpose of advocating for individual patients to access hormones and surgeries. However, this advocacy learning and teaching focused more on micro-level workarounds in response to inequitable protocols, rather than creating systems change at the policy level. In keeping with the GRE test example, informants we spoke with consistently identified this WPATH-SOC criterion as a practice of gatekeeping, and reported that it called for a workaround. One clinician-educator identified the difficulties of teaching learners to conduct hormone/surgery readiness assessments due to the failures of this protocol. He explained:

> So they'll [learners] bring in the case. Complex, it is. Person hasn't come out, is not at all presenting in the gender [congruent role]. They still want their vaginoplasty. You know, heavy duty stuff… But ultimately, are they gender dysphoric?… "Oh yeah, that's clear" [learners' responses]. OK. So what's the treatment for gender dysphoria? Is it psychotherapy? No. It's hormones and surgeries. The person is asking you for surgery, we need to get them to surgery. That's the treatment. I'm using that language because people [learners] will go "yes, but". But what? If the person were

diabetic and depressed, anxious, or whatever. You wouldn't hold off on the diabetes treatment…

This exchange between a clinician-educator and clinician-learners illuminates many ongoing debates and social practices in response to the textually coordinated work of conducting psychosocial readiness assessments. According to the WPATH-SOC, vaginoplasty is available only after a patient has been living for twelve continuous months in their gender role (GRE criterion). Instead, this informant is teaching learners a health advocacy workaround that resists the WPATH-SOC's assessment protocol. His teaching is informed by empirical data that argues in favour of 'treating' gender dysphoria with hormones and surgeries, not unlike how insulin is an accepted treatment for diabetes. Yet some clinicians may hesitate in referring trans people for the recommended medical treatments, saying "yes, but" if patients' experiences do not follow a trajectory outlined by protocol.

By learning that protocols in gender-affirming medicine are imperfect and cause inequities for trans people, some informants discussed the need to advocate for change. Although the majority of health advocacy learning and teaching described strategies to enable patients to access hormones and surgeries, there were a few notable exceptions. For example, one informant discussed engaging in health advocacy work aimed to improve healthcare funding policies in terms of extending coverage to include gender-affirming medical procedures not currently funded by provincial health insurance. Other informants discussed advocating to change the WPATH-SOC protocol that create access inequities for trans patients. While discussed less often by informants, macro-level advocacy targeted at healthcare funding policy and protocols in gender-affirming medicine were identified as crucial to remedy problems created by the DSM and the WPATH-SOC. Whereas protocol workarounds offer band-aid solutions, systems-level social change work is crucial to prevent these harms from happening in the first place.

Discussion

Our study results reveal that clinicians learn and teach health advocacy through working with, and resisting, standardized protocols for the express purpose of advocating for trans patients. These clinical skills are largely learned informally through interacting with trans patients while using these standardized texts. With that said, this study has revealed two paradoxes of gender-affirming medicine and health advocacy learning. First, standardized care protocols are ostensibly designed to foster quality care in a fair manner. Yet, because universal protocol texts such as the DSM and the WPATH-SOC introduce gaps and inequities, these protocols also trigger the need to advocate for those underserved by a one-size-fits all approach. Second, health advocacy by informants largely occurred at the individual patient level, which may reinforce status quo rather than enabling change. Learning acts of micro advocacy in response to texts, rather than initiating macro-level systems change, may in fact perpetuate an inequitable system rather than improve it. Instead, systems-focused social change work may be the best approach to make changes to the governing structures and associated protocol texts that create the inequities in the first place.

HPE researchers underscore that learning health advocacy is ethically fundamental to many health professions (Martin et al. 2013; Ng et al. 2015). Moreover, it is suggested that deficiencies in teaching medical students about health systems and policy negatively affects physicians' abilities to navigate the complexity of medical decision making, affecting patient care in turn (Patel et al. 2011). Gender-affirming medical care research, in

particular, underscores the need for clinicians to advocate for better patient care, and for more explicit teaching on trans identities and health systems advocacy in the formal curricula (Cavanaugh et al. 2016; Dowshen et al. 2014; Jaffee et al. 2016). Increasing teaching in HPE on the diversity of trans identities and life experiences may also mitigate the patient-side problem of feeling it necessary to present for treatment according to binary gender narratives associated with the DSM gender dysphoria criteria. Shuster (2016) similarly explains that trans people's complex, and often fluid, gender identities are fundamentally incompatible with standardized medicine. Clinicians working in gender-affirming medicine interface with these, and other complex social structures, which require advocacy. This may be why advocacy learning and teaching was a core feature of the work happening in gender-affirming medicine.

Previous research has identified a relationship between clinical complexity, social practices, and advocacy. LaDonna et al. (2018) find that clinicians who successfully navigate complexity do so through an ability to advocate. That is, when cases demand more than simply "textbook knowledge", health professionals apply advocacy skills (LaDonna et al. 2018, p. 1133). Our study informants' abilities to advocate in the face of complexity and constraining standardized protocols was apparent. However, it is important to point out that most of the advocacy work described by informants was characterized by micro-level action such as teaching learners to work around the GRE test to enable patients' access to surgeries. Informants described their work of engaging in patient advocacy such as learning to critically resist the WPATH-SOC and the DSM gender dysphoria diagnosis; fewer described macro-level advocacy to trouble the role of these texts in gender-affirming medical care. Macro-level advocacy, in this example, may include health care professionals organizing to change mandatory psychosocial readiness assessment policy.

This research supports prior studies that have positioned everyday health advocacy (e.g. innovating and working around clinical standards) as a role taken up when protocols fall short. In a previous study of clinicians who work with trans patients, Shuster (2016) also found that clinicians "bend the rules" or "loosely interpret" the WPATH-SOC (p. 327)—recognizing when these protocols do not work well. Evidently, through practice experiences clinicians' adherence to standardized protocols evolve.

On the other hand, our study also shows that these everyday advocacy acts can, in the long-term, perpetuate the very systemic inequities that they are avoiding. For instance, clinicians and clinician-educators working in gender-affirming medicine are called upon to learn to compassionately care for trans people and to improve access to necessary treatments (Bouman et al. 2014; Budge 2015; Deutsch 2012). HPE plays a critical role for this to happen. Patel et al. (2011) highlight that to achieve health care reform, including equity, medical schools and residency programs must teach learners to critically engage with health policy. Martimianakis and Hafferty (2016) stress the importance of preparing learners and teachers to resist the "role of institutions and organizations in perpetuating the conditions that give rise to the dehumanization of medical practice" (p. 278). As our results indicate, to humanize gender-affirming medicine and remedy the harms created by protocols, health professionals must be involved in systems social change work. Yet with gender-affirming medicine's absence in the formal curriculum, learning to resist pathologizing conditions affecting trans people currently happens informally.

Some scholars suggest that teaching advocacy to trainees is difficult (Dobson et al. 2012; Martin et al. 2013). Yet there is evidence that physicians, for instance, learn how to work with marginalized patients outside of the formal curriculum, through clinical experiences and reflexivity (Mykhalovskiy and Farrell 2005). In other words, workplace-based learning, and reflecting on these experiences, has been shown to be a primary site of health

advocacy teaching and learning (Hubinette et al. 2017). In order to prepare clinicians for workplace-based advocacy learning, we suggest attention to appropriate pedagogical approaches for future learning.

Previous research has shown critical reflection to be necessary for learning social roles of care like advocacy (Mykhalovskiy and Farrell 2005; Ng et al. 2015). While reflection is a common construct within HPE (Shiau and Chen 2008; Sandars 2009), critical reflection is taken up less so. Critical reflection encompasses an explicit investigation into social power relations with an effort toward action and justice (Ng et al. 2015). Our research found that, indeed, health advocacy is taught and learned through direct clinical experiences with patients in the workplace, and that critical reflection may support this learning. For example, informants reflected on how protocols directed them into gatekeeping roles—positions of clinical power that were identified as pathologizing to trans people. Informants were also critically reflective about their lack of adequate formal instruction on trans health issues in their professional training. Being health advocates for trans people calls for clinicians to critically reflect, and to take action against inequitable power relations. Thus, future research and education efforts within gender-affirming medicine must include explicit focus on teaching and learning critical reflection.

Limitations

Although our research on how people learn to work in gender-affirming medicine yields important and novel results, there are limitations. For instance, while our sample was diverse in terms of including various healthcare disciplines, we could not talk with everyone involved in gender-affirming medicine. For example, no nurses, speech therapists, or surgeons were interviewed. Furthermore, with so few HPE programs explicitly including gender-affirming medicine in the formal curricula, evaluations of learning and teaching in classroom settings are challenging. Our study of informal, on-the-job learning therefore mirrors how clinicians gain these skills. Yet due to limited resources, we could not interview and observe people in all pertinent clinical settings across the country. A majority of interviews with informants, and clinician-education workshop observations, took place in Toronto and Vancouver, Canada. We did not speak with informants from other jurisdictions which would have strengthened our analysis of how protocols shape and coordinate learning and teaching happening in multiple locations. However, IE methodology mitigates this limitation through its attention to explicating how texts govern people's work practices translocally—across multiple locations. We therefore assert that these protocols—the WPATH-SOC and the DSM—shape the teaching and learning of gender-affirming medicine across many geographic contexts.

Conclusion

Learning to be a health advocate is a core ethical feature of the health professions. While previous research in academic medicine shows that educating for equity is challenging, our findings highlight that advocacy learning emerges in response to the constraints of protocols. In our example of gender-affirming medicine, health advocacy learning can ultimately be traced back to a textually-coordinated health system plagued by universal one-size-fits-all standardized assessments that fail trans patients. In the absence of trans health

curricula in most HPE programs, clinician-learners therefore gain this knowledge and expertise experientially and informally on the job. Protocols, in this case, are the teachers. In complex clinical settings such as gender-affirming medicine, protocols teach people the necessity of workarounds for patient advocacy. However, our findings also underscore that, although necessary for patient advocacy, these workarounds may reinforce status quo rather than initiate systems-change. For these reasons, teaching critical reflection skills in HPE is an appropriate educational intervention to prepare clinicians to identify and resist complex inequitable power structures inherent in gender-affirming medicine.

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